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DRL Reading
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ACRS (16)
DJSkovholt, DRL
TJCarter, DRL
DLZiemann, DRL
JIRiesland, DRL
RMDiggs, DRL
RBoyd, DRL
RDeYoung, DRL
RVollmer, DRL
CRoberts, EPA

APR 19 1972

Docket Nos. 50-254
and 50-265

Commonwealth Edison Company
ATTN: Mr. Byron Lee, Jr.
Assistant to the President
P. O. Box 767
Chicago, Illinois 60690

Change No. 1
License Nos. DPR-29
and DPR-30

Gentlemen:

In a letter dated April 7, 1972, you proposed a change to the Technical Specifications of Facility Operating License Nos. DPR-29 and DPR-30 for Quad-Cities Units 1 and 2. The proposed change would lower the turbine control-oil pressure scram set point from 1100 psig to 900 psig. The lower set point is requested to reduce the frequency of spurious scrams occurring from this sensor while manipulating the turbine controls during startup.

An identical request for Dresden Units 2 and 3 was previously reviewed by us and approved on November 3, 1971, as part of Change Nos. 16 and 8 to Facility License Nos. DPR-19 and DPR-25, respectively. The turbines, electro-hydraulic control systems, and reactor protection systems of Quad-Cities Units 1 and 2 are comparable with those of Dresden Units 2 and 3, therefore, we have concluded that the proposed change does not present significant hazards considerations not described or implicit in the Safety Analysis Report and that there is reasonable assurance that the health and safety of the public will not be endangered.

Accordingly, pursuant to Section 50.59 of 10 CFR Part 50, the Technical Specifications of Facility Operating License Nos. DPR-29 and DPR-30 for Quad-Cities Units 1 and 2 are hereby changed to include the above request by replacing pages 9, 23 and 34 with the revised pages enclosed herewith.

Sincerely,

/s/ Dudley Thompson

for Donald J. Skovholt
Assistant Director for
Reactor Operations
Division of Reactor Licensing

Enclosures:
Revised pages 9, 23 & 34

cc: See attached sheet

OFFICE ▶	DRL	DRL	DRL	DRL
SURNAME ▶	JIRiesland	RMDiggs	DLZiemann	DJSkovholt
DATE ▶	4/19/72	4/19/72	4/19/72	4/19/72

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1971—416—468

cc w/enclosures:
John W. Rowe, Esquire
Isham, Lincoln & Beale
Counselors at Law
One First National Plaza
Chicago, Illinois 60670

Mr. Charles Whitmore
President and Chairman
Iowa-Illinois Gas and
Electric Company
206 East Second Avenue
Davenport, Iowa 52801

OFFICE ▶						
SURNAME ▶						
DATE ▶						

1.1 SAFETY LIMIT	2.1 LIMITING SAFETY SYSTEM SETTING
	shall be used.
	C. Reactor Low Water Level Scram setting shall be ≥143" above the top of the active fuel at normal operating conditions.
	D. Reactor Low Low Water Level ECCS initiation shall be 83" ($^{+4}_{-0}$") above the top of the active fuel at normal operating conditions.
	E. Turbine Stop Valve Scram shall be ≤10% valve closure from full open.
	F. Generator Load Rejection Scram shall initiate upon actuation of the fast closure solenoid valves which trip the turbine control valves.
	G. Main Steamline Isolation Valve Closure Scram shall be ≤10% valve closure from full open.
	H. Main Steamline Low Pressure initiation of main steamline isolation valve closure shall be ≥850 psig.
	I. Turbine Control Valve Fast Closure Scram on loss of control oil pressure shall be set at greater than or equal to 900 psig. 1

providing protection for the fuel cladding integrity safety limit. Operation of the reactor at pressures lower than 850 psig requires that the reactor mode switch be in the startup position where protection of the fuel cladding integrity safety limit is provided by the IRM and APRM high neutron flux scrams. Thus, the combination of main steam line low pressure isolation and isolation valve closure scram assures the availability of neutron flux scram protection over the entire range of applicability of the fuel cladding integrity safety limit. In addition, the isolation valve closure scram anticipates the pressure and flux transients which occur during normal or inadvertent isolation valve closure. With the scrams set at 10% valve closure there is no increase in neutron flux.

Turbine Control Loss of Control Fluid Pressure - The turbine hydraulic control system operates using high pressure oil. There are several points in this oil system where a loss of oil pressure could result in a fast closure of the turbine control valves. This fast closure of the turbine control valves is not protected by the generator load rejection scram since failure of the oil system would not result in the fast closure solenoid valves being actuated. For a turbine control valve fast closure, the core would be protected by the APRM and high reactor pressure scrams. However, to provide the same margins as provided for the generator load rejection scram on fast closure of the turbine control valves, a scram has been added to the reactor protection system which senses failure of control oil pressure to the turbine control system. This is an anticipatory scram and results in reactor shutdown before any significant increase in pressure or neutron flux occurs. The transient response is very similar to that resulting from the generator load rejection. The scram set-point of 900 psig is set high enough to provide the necessary anticipatory function and low enough to minimize the number of spurious scrams. Normal operating pressure for this system is 1250 psig. Finally the control valves will not start until the fluid pressure is 600 psig. Therefore, the scram occurs well before valve closure begins.

TABLE 3.1.1.c

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS
RUN MODE

Minimum Number of Operable or Tripped Inst. Channels per Trip[1] System	Trip Function	Trip Level Setting	Action[2]
1	Mode Switch in Shutdown		A
1	Manual Scram		A
	APRM[3]		
2	High Flux (Flow Biased)	Specification 2.1.A.1	A or B
2	Inoperative		A or B
2	Downscale[11]	≥3/125 of Full Scale	A or B
2	High Reactor Pressure	≤1060 psig	A
2	High Drywell Pressure	≤ 2 psig	A
2	Reactor Low Water Level	≥ 8 .inches[8]	A
2	High Water Level in Scram Discharge Tank	≤ 50 gallons	A
2	Turbine Condenser Low Vacuum	≥ 23 in.Hg Vacuum	A or C
2	Main Steamline High Radiation	≤ 7 X Normal Full Power Background	A or C
4	Main Steamline Isolation Valve Closure (6)	≤10% Valve Closure	A or C
2	Generator Load Rejection[9]	(10)	A or C
2	Turbine Stop Valve Closure[9]	≤10% Valve Closure	A or C
2	Turbine Control Loss of EHC Control Fluid Pressure[9]	≥ 900 psig	A or C 1

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

April 19, 1972

Docket Nos. 50-254
and 50-265

Commonwealth Edison Company
ATTN: Mr. Byron Lee, Jr.
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P. O. Box 767
Chicago, Illinois 60690

Change No. 1
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and DPR-30

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An identical request for Dresden Units 2 and 3 was previously reviewed by us and approved on November 3, 1971, as part of Change Nos. 16 and 8 to Facility License Nos. DPR-19 and DPR-25, respectively. The turbines, electro-hydraulic-control systems, and reactor protection systems of Quad-Cities Units 1 and 2 are comparable with those of Dresden Units 2 and 3; therefore, we have concluded that the proposed change does not present significant hazards considerations not described or implicit in the Safety Analysis Report and that there is reasonable assurance that the health and safety of the public will not be endangered.

Accordingly, pursuant to Section 50.59 of 10 CFR Part 50, the Technical Specifications of Facility Operating License Nos. DPR-29 and DPR-30 for Quad-Cities Units 1 and 2 are hereby changed to include the above request by replacing pages 9, 23 and 34 with the revised pages enclosed herewith.

Sincerely,

for Donald J. Skovholt
Assistant Director for
Reactor Operations
Division of Reactor Licensing

Enclosures:
Revised pages 9, 23 & 34

cc: See attached sheet

cc w/enclosures:
John W. Rowe, Esquire
Isham, Lincoln & Beale
Counselors at Law
One First National Plaza
Chicago, Illinois 60670

Mr. Charles Whitmore
President and Chairman
Iowa-Illinois Gas and
Electric Company
206 East Second Avenue
Davenport, Iowa 52801

1.1 SAFETY LIMIT	2.1 LIMITING SAFETY SYSTEM SETTING
	shall be used.
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	H. Main Steamline Low Pressure initiation of main steamline isolation valve closure shall be $\geq$850 psig.
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providing protection for the fuel cladding integrity safety limit. Operation of the reactor at pressures lower than 850 psig requires that the reactor mode switch be in the startup position where protection of the fuel cladding integrity safety limit is provided by the IRM and APRM high neutron flux scrams. Thus, the combination of main steam line low pressure isolation and isolation valve closure scram assures the availability of neutron flux scram protection over the entire range of applicability of the fuel cladding integrity safety limit. In addition, the isolation valve closure scram anticipates the pressure and flux transients which occur during normal or inadvertent isolation valve closure. With the scrams set at 10% valve closure there is no increase in neutron flux.

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2	High Drywell Pressure	≤ 2 psig	A
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1

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 19 1972

Files (Docket Nos. 50-254 & 50-265)
THRU: D. L. Ziemann, Chief, ORB #2, DRL

QUAD CITIES UNITS 1 & 2 - TECHNICAL SPECIFICATION CHANGE NO. 1

In a letter dated April 7, 1972, Commonwealth Edison Company proposed a change in the Technical Specifications of Facility License Nos. DPR-29 and DPR-30 for Quad Cities Units 1 and 2. The proposed change is to lower the set point of the turbine electro-hydraulic-control (EHC) system pressure scram from 1100 psig to 900 psig. The lower set point is requested to reduce the frequency of spurious scrams occurring from this sensor while manipulating the turbine controls during startup.

An identical change was proposed, evaluated and approved for Dresden Units 2 and 3. Quad Cities Units 1 and 2 have comparable turbines, EHC systems and RPS for equally rated BWRs. The results of the Dresden evaluation as shown in the enclosed letter to Files by G. Lainas, DRL, dated October 26, 1971, is equally applicable to the Quad Cities reactors. On this basis and because of the anticipatory nature of this scram, we have concluded that the proposed change does not present significant hazards considerations not described or implicit in the Safety Analysis Report and that there is reasonable assurance that the health and safety of the public will not be endangered. Consequently, pages 9, 23 and 34 of the Technical Specifications of Licenses DPR-29 and DPR-30 are revised to accommodate this request.

J. I. Riesland
Operating Reactors Branch #2
Division of Reactor Licensing

Enclosure:
Memo to Files dtd 10/26/71

cc w/enclosure:
DJSkovholt, DRL
TJCarter, DRL
DLZiemann, DRL
JIRiesland, DRL
RMDiggs, DRL
Compliance (3)
MJinks, DR (2)

G. Lainas

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

OCT 26 1971

Files
THRU: R. L. Tedesco, Chief, BWR #2, Division of Reactor Licensing

EVALUATION OF PROPOSED TECHNICAL SPECIFICATION CHANGE NO. 16 FOR DRESDEN UNIT 2 AND CHANGE NO. 8 FOR DRESDEN UNIT 3

In separate letters (each dated September 27, 1971), Commonwealth Edison Company proposed Change No. 16 to the Technical Specifications of Dresden Unit 2 and Change No. 8 to the Technical Specifications of Dresden Unit 3. The proposed changes for the two units are identical and relate to (1) a lowering of the turbine-generator control-oil-pressure scram setpoint, (2) a change in the surveillance requirements for the Intermediate Range Monitor (IRM) instrumentation, (3) the addition of an IRM control rod block function for IRM detector position, and (4) an APRM rod block at a maximum reactor power of 12 percent in the refuel and startup/hot standby operating modes.

Our evaluation of the proposed changes to the Technical Specifications indicates that there is no change to the results of the analyses described in the Final Safety Analysis Report and therefore does not involve unreviewed safety questions. We therefore conclude that the proposed changes do not present significant hazards considerations not described or implicit in the safety analyses report and that there is reasonable assurance that the health and safety of the public will not be endangered. We have reviewed the licensee's proposed changes and supporting evaluations as follows:

(1) Change of turbine-loss-of-control-oil-pressure scram setpoint

The licensee provided for anticipatory scram protection in the event of turbine-generator loss-of-control-oil-pressure (set at equal to or greater than 1100 psi) in Change No. 11 to the Technical Specifications of Dresden Unit 2 and Change No. 3 to the Technical Specifications of Dresden Unit 3. We approved this change and our evaluation was reported in a memo, Lainas to Files, dated June 9, 1971. The licensee has since determined that the setpoint of 1100 psi was set too close to the operating pressure of 1250 psi and has resulted in spurious scrams. The licensee now proposes to lower the setpoint to equal to or greater than 900 psi to prevent these spurious scrams. The setpoint is still adequate to allow an anticipatory scram in the event of loss-of-control-oil-pressure.

The reduction of the setpoint is acceptable since it would prevent inadvertent reactor scram and yet provide an adequate margin of safety.

(2) Change in surveillance requirements for IRM instrumentation

Presently, the IRM instrumentation must be functionally tested and calibrated before each startup and shutdown, respectively, which has required as much as three functional tests and calibrations per week. This is considered excessive. The change proposes a maximum test frequency of once per week which is consistent with the functional test requirements of the APRM instrumentation and is adequate.

(3) Rod block on IRM detection position

A control rod blocking function has been added for an IRM detector not fully inserted in the core. This rod block ensures that control rod withdrawal does not occur unless the IRM instrumentation has been inserted into the core to provide the required protection in the refuel and startup/hot standby operating mode.

(4) APRM rod block at equal to or less than 12% reactor power

An APRM upscale rod block (equal to or less than 12% reactor power) has been added for the refuel and startup/hot standby operating mode. This additional rod block would prevent rod withdrawal above 12% reactor power in the above operating modes.

G. Lainas
Division of Reactor Licensing